Inventor: OGAWA
Docket No. 3.255USDI
Title: LIQ YSTAL ALIGNMENT FILM AND METHOD FOR PRODUCIN
SAME, AND UID CRYSTAL DISPLAY APPARATUS USING THE SAME AND
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet 1 of 28

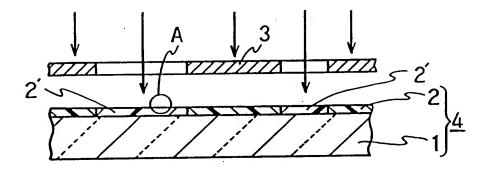


FIG. 1

Inventor: OGAWA

Docket No.: 3.255USD1

DOCKET NO.: 3.255USDI
Title: LIQ YSTAL ALIGNMENT FILM AND METHOD FOR PRODUCIN
SAME, AND UID CRYSTAL DISPLAY APPARATUS USING THE SAME AN
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 2

Inventor: OGAWA
Docket No. 23.255USD1
Title: LIQ LYSTAL ALIGNMENT FILM AND METHOD FOR PRODUCIN
SAME, AN QUID CRYSTAL DISPLAY APPARATUS USING THE SAME AN
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet 3 of 28

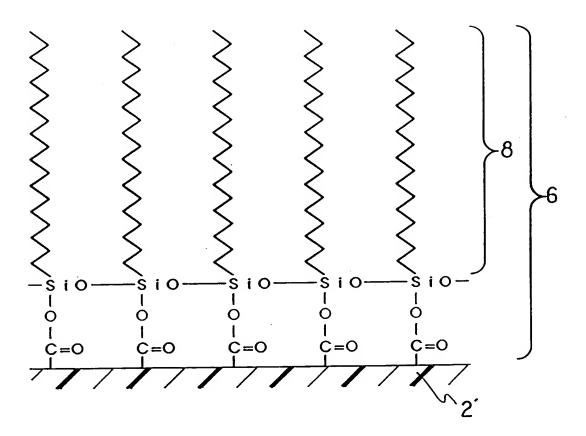


FIG. 3

Title: LIQ RYSTAL ALIGNMENT FILM AND METHOD FOR PRODUCI SAME, AN OUID CRYSTAL DISPLAY APPARATUS USING THE SAME ATTOMEY Name: Douglas P. Mueller Phone No.: 612.371.5237 Sheet 4 of 28

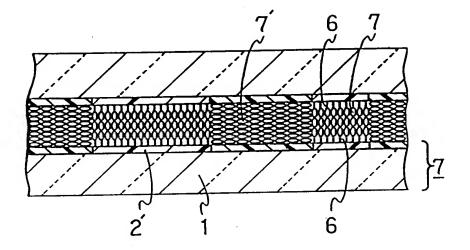


FIG.

Inventor: OGAWA
Docket No.: 73.255USD1
Title: LIQU YSTAL ALIGNMENT FILM AND METHOD FOR PRODUCIN
SAME, AND JID CRYSTAL DISPLAY APPARATUS USING THE SAME AND
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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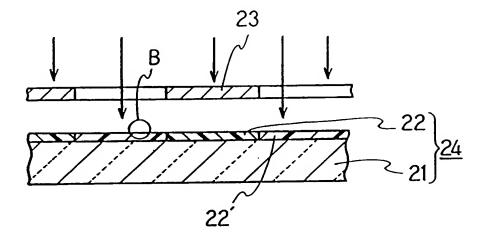


FIG. 5

Tide: LIQUE YSTAL ALIGNMENT FILM AND METHOD FOR PRODUCING SAME, AND WID CRYSTAL DISPLAY APPARATUS USING THE SAME AND METHOD FOR PRODUCING THE SAME AUTORIEV Name: Douglas P. Mueller Phone No.: 612.371.5237

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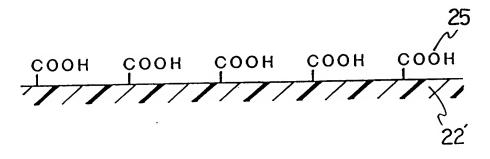


FIG. 6

Inventor: OGAWA
Docket No.: 1087
Title: LIQUID C
L ALIGNMENT FILM AND METHOD FOR PRODUCING TH
SAME, AND LIQUED C
RYSTAL DISPLAY APPARATUS USING THE SAME AND
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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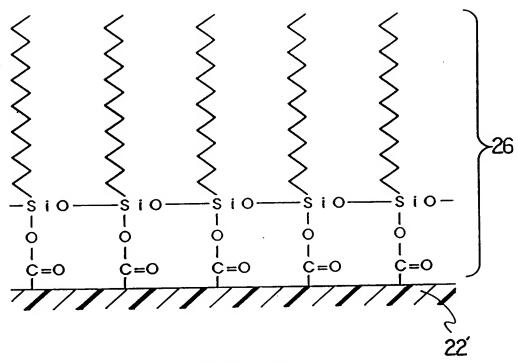


FIG. 7

Inventor: OGAWA Docket No.: 73.255USD1

Title: LIQI YSTAL ALIGNMENT FILM AND METHOD FOR PRODUCIN SAME, AN UID CRYSTAL DISPLAY APPARATUS USING THE SAME AN METHOD FOR PRODUCING THE SAME Attorney Name: Douglas P. Mueller Phone No.: 612.371.5237

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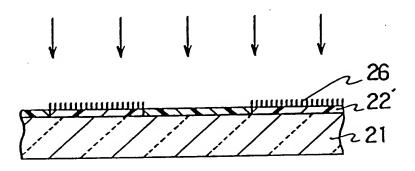


FIG. 8

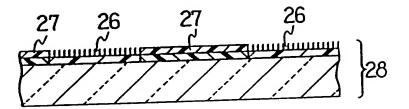


FIG. 9

Inventor: OGAWA
Docket No.: 1087: USD1
Title: LIQUID C L ALIGNMENT FILM AND METHOD FOR PRODUCING TH
SAME, AND LIQ RYSTAL DISPLAY APPARATUS USING THE SAME AND
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 10

AL ALIGNMENT FILM AND METHOD FOR PRODUCING THE SAME, AND LICENSTAL DISPLAY APPARATUS USING THE SAME AND METHOD FOR PRODUCING THE SAME Attorney Name: Douglas P. Mueller Phone No.: 612.371.5237 Sheet 11 of 28

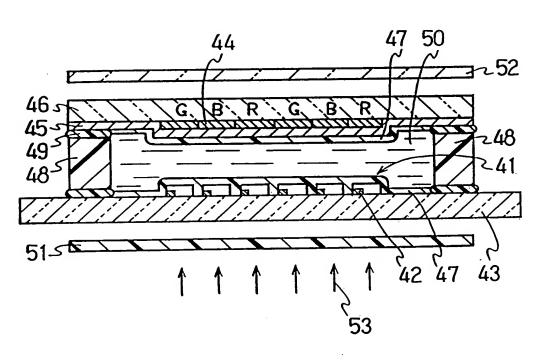


FIG. 11

Inventor: OGAWA
Docket No.: 2,255USD1
Title: LIQU STAL ALIGNMENT FILM AND METHOD FOR PRODUCING
SAME, AND JID CRYSTAL DISPLAY APPARATUS USING THE SAME AND
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 12

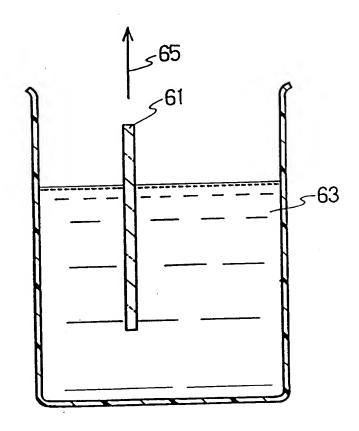
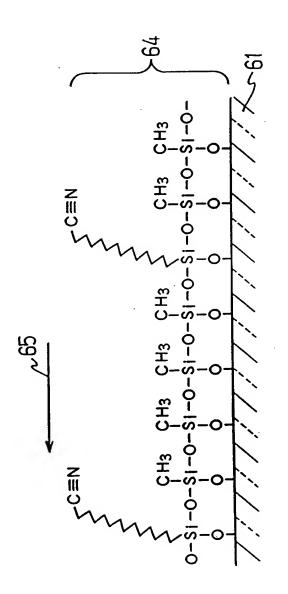


FIG. 13



F16. 14

Inventor: OGAWA
Docket by 1873.255USD1
Title: L CRYSTAL ALIGNMENT FILM AND METHOD FOR PRODUCT
SAME, A LIQUID CRYSTAL DISPLAY APPARATUS USING THE SAME METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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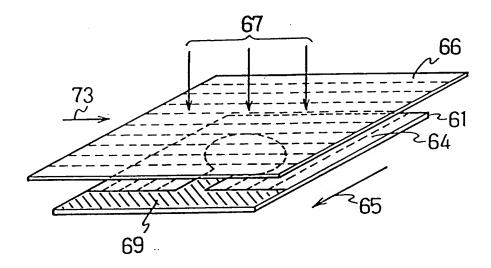


FIG. 15

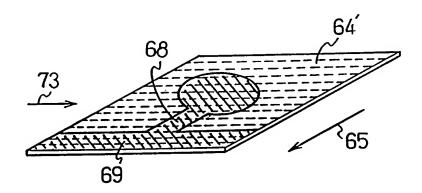
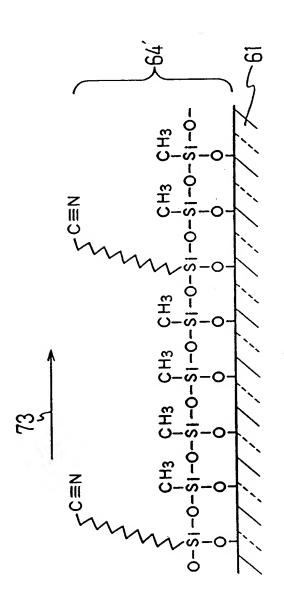


FIG. 16

Title: LIQ YSTAL ALIGNMENT FILM AND METHOD FOR PRODUCING SAME, AN UID CRYSTAL DISPLAY APPARATUS USING THE SAME AN METHOD FOR PRODUCING THE SAME Attorney Name: Douglas P. Mueller Phone No.: 612.371.5237 Sheet 15 of 28



Inventor: OGAWA
Docket No.: 255USDI
Title: LIQU STAL ALIGNMENT FILM AND METHOD FOR PRODUCING
SAME, AND SUID CRYSTAL DISPLAY APPARATUS USING THE SAME AND
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237

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FIG. 18

FIG. 19

Inventor: OGAWA
Docket No.: 10873-265USD1
Title: LIQUID CITY OF A LALIGNMENT FILM AND METHOD FOR PRODUCING TH
SAME, AND LIQUID RYSTAL DISPLAY APPARATUS USING THE SAME AND
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237

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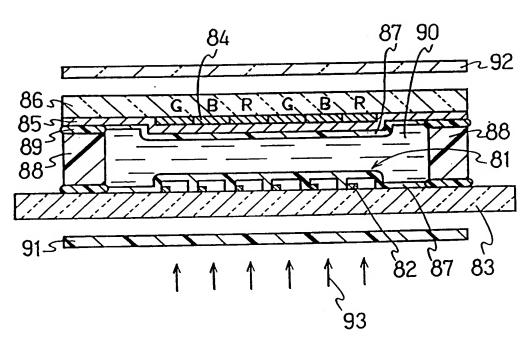
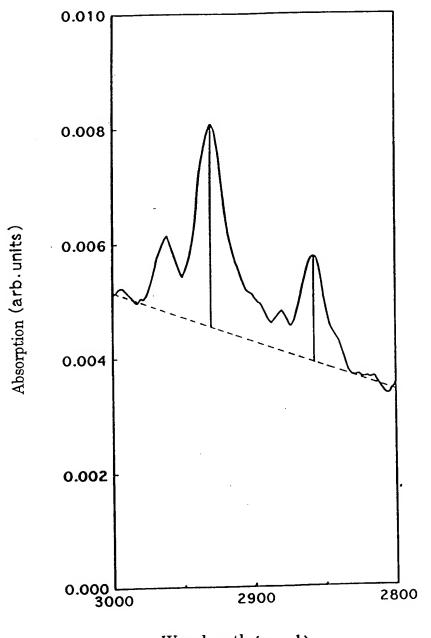


FIG. 20

Inventor: OGAWA
Docket No. 73.255USD1
Title: LIQ YSTAL ALIGNMENT FILM AND METHOD FOR PRODUCIN
SAME, AN. 2UID CRYSTAL DISPLAY APPARATUS USING THE SAME AN
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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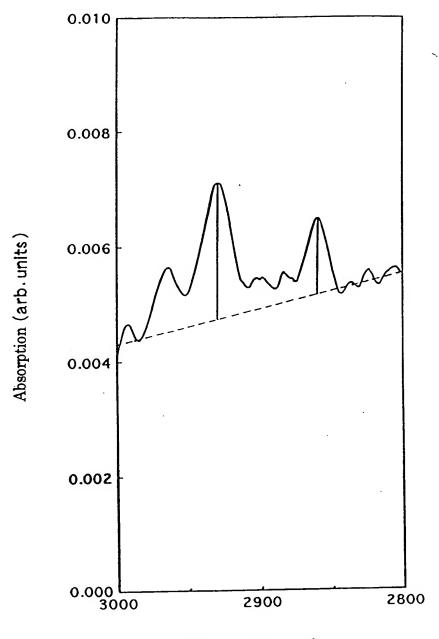


Wavelength (cm⁻¹)

FIG. 21

Inventor: OGAWA Docket No.: 10873 : Title: LIQUID CR

Title: LIQUID CR ALIGNMENT FILM AND METHOD FOR PRODUCING THE SAME, AND LIQU YSTAL DISPLAY APPARATUS USING THE SAME AND METHOD FOR PRODUCING THE SAME Attorney Name: Douglas P. Mueller Phone No.: 612.371.5237 Sheet 19 of 28



Wavelength(cm⁻¹)

FIG. 22

Inventor: OGAWA
Doctor: 10873.255USD1
Title JID CRYSTAL ALIGNMENT FILM AND METHOD FOR PRO
SAN DE LIQUID CRYSTAL DISPLAY APPARATUS USING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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THE

FIG. 23

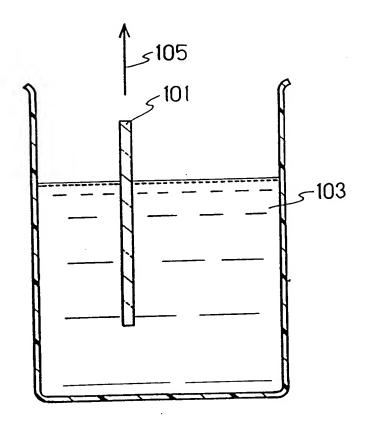
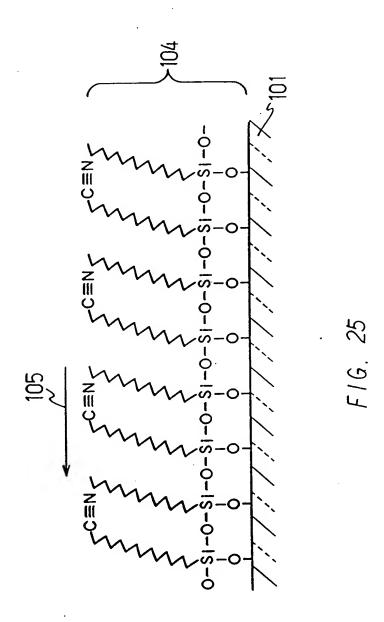


FIG. 24

Inventor: OGAWA
Docket N. 73.255USD1
Title: LIQ RYSTAL ALIGNMENT FILM AND METHOD FOR PRODUCI
SAME, AND LIQUID CRYSTAL DISPLAY APPARATUS USING THE SAME AN
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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Inventor: OGAWA
Doci : 10873.255USDI
Titl : JID CRYSTAL ALIGNMENT FILM AND METHOD FOR PRO
SAN. AID LIQUID CRYSTAL DISPLAY APPARATUS USING THE SAN
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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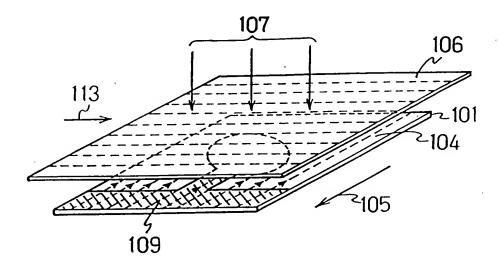


FIG. 26

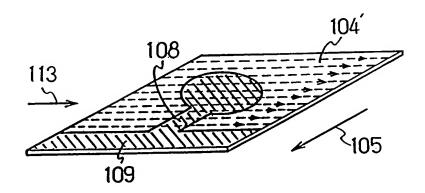
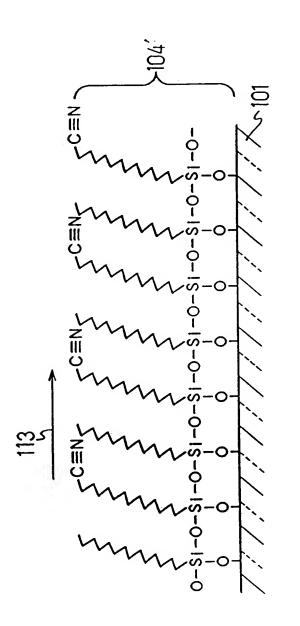


FIG. 27

Inventor: QGAWA
Docket 0873.255USD1
Title: CRYSTAL ALIGNMENT FILM AND METHOD FOR PRODUCE
SAME, ARD LIQUID CRYSTAL DISPLAY APPARATUS USING THE SAME AUTOMOTHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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F16. 28

Inventor: OGAWA
Docks 10873.255USD1
Title D CRYSTAL ALIGNMENT FILM AND METHOD FOR PROD
SAME D LIQUID CRYSTAL DISPLAY APPARATUS USING THE SAM
METHOD FOR PRODUCING THE SAME

Attorney Name: Douglas P. Mueller Phone No.: 612.371.5237

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FIG. 29

FIG. 30

Title: D CRYSTAL ALIGNMENT FILM AND METHOD FOR PRODUSAME, LIQUID CRYSTAL DISPLAY APPARATUS USING THE SAME METHOD FOR PRODUCING THE SAME Attorney Name: Douglas P. Mueller Phone No.: 612.371.5237 Sheet 25 of 28

THE

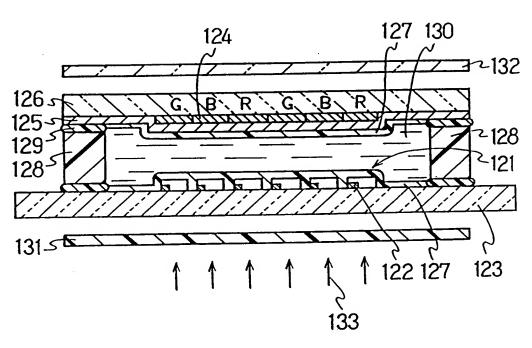
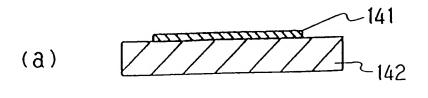
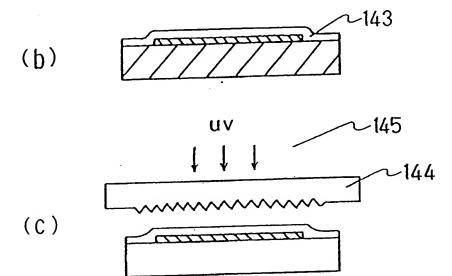


FIG. 31

Inventor: OGAWA
Docket No., 3.255USD1
Title: LIQ1
YSTAL ALIGNMENT FILM AND METHOD FOR PRODUCIN
SAME, AND UID CRYSTAL DISPLAY APPARATUS USING THE SAME AN
METHOD FOR PRODUCING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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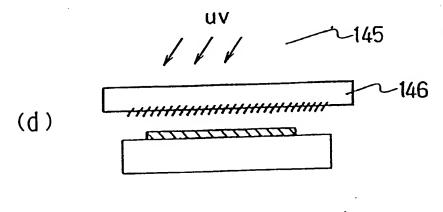
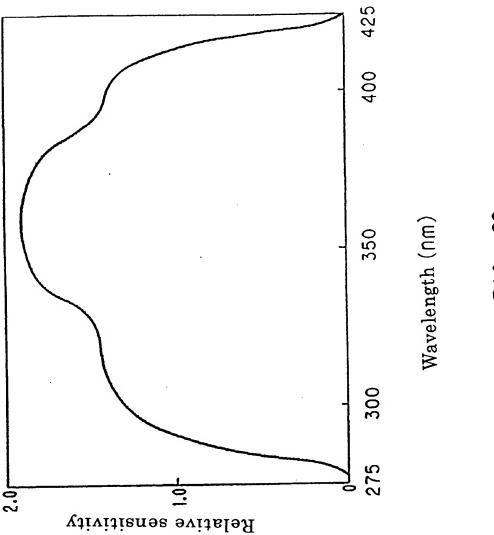


FIG. 32

Inventor: OGAWA Docket No.: 1 Title: LIQUII SAME, AND L Inventor: QGAWA
Docket No.: 1 55USD1
Title: LIQUIT TAL ALIGNMENT FILM AND METHOD FOR PRODUCING
SAME, AND ENOUGH THE SAME AND
METHOD FOR PRODUCING THE SAME Attorney Name: Douglas P. Mueller Phone No.: 612.371.5237

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Inventor: OGAWA
Docket N 873.255USD1
Title: Ll CRYSTAL AL Title: LI PRYSTAL ALIGNMENT FILM AND METHOD FOR PRODUCT SAME, A. QUID CRYSTAL DISPLAY APPARATUS USING THE SAME A METHOD FOR PRODUCING THE SAME

Attorney Name: Douglas P. Mueller Phone No.: 612.371.5237 Sheet 28 of 28

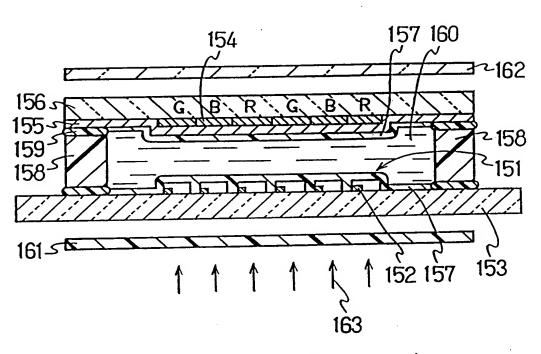


FIG. 34